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# GRUMMAN plane news

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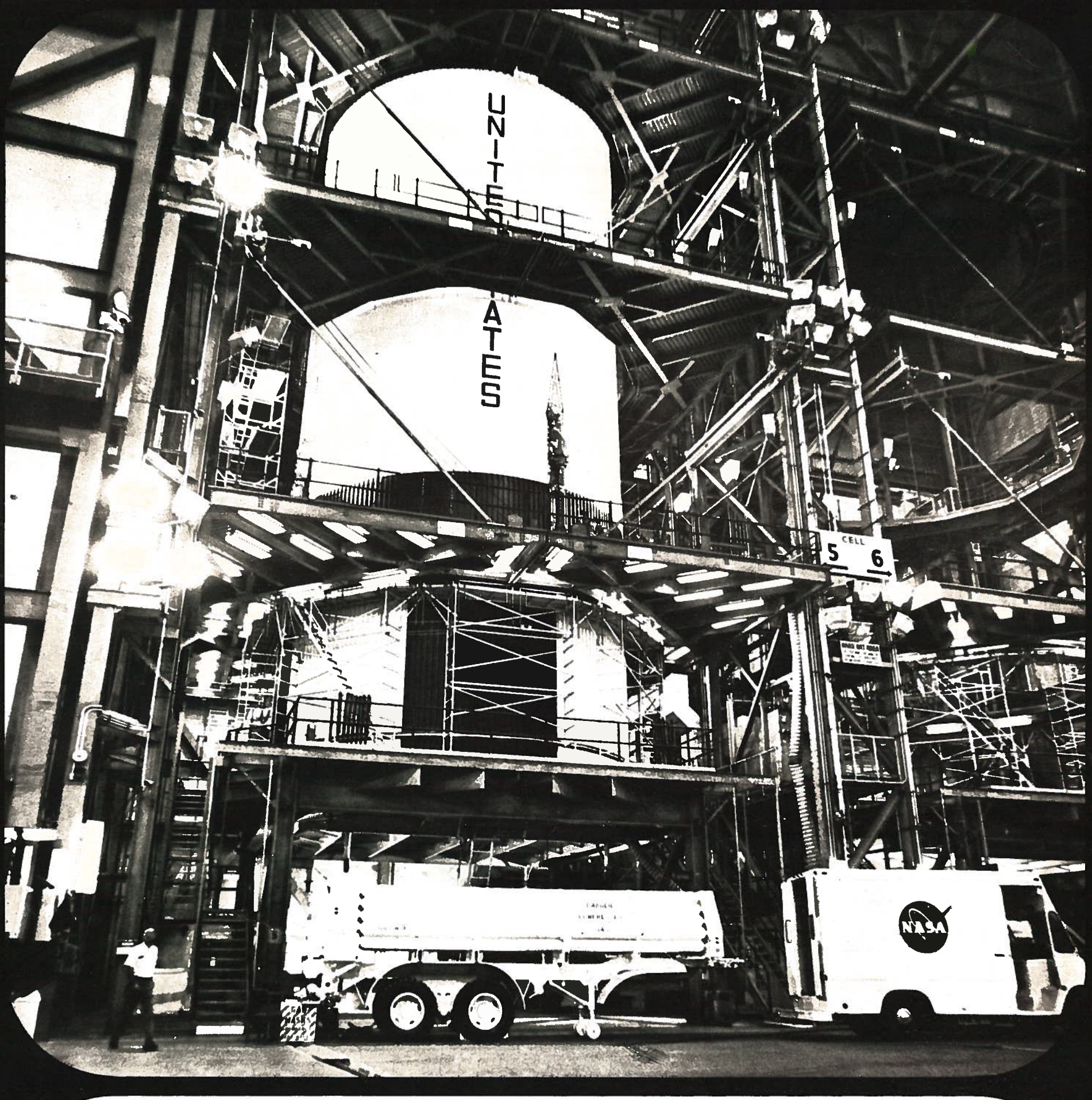



## They're building up to a moon mission

# Grumman awarded $3.5 million to construct air cushion vehicle

A $3.5 million contract for construction, by Grumman Aerospace, of a tracked air cushion research vehicle (TACRV) was announced on June 30 by Secretary of Transportation John Volpe.

"The tracked air cushion vehicle concept shows great promise for meeting transportation needs of the near future," Secretary Volpe said. "I am pleased that we have reached the hardware stage where we can start testing to see if that promise is justified."

During the past year, with Director Bob Benito and Manager Greg Grubelich heading the TACRV team's efforts, Grumman developed the design for the vehicle and the guideway on which it operates, and presented program plans for later vehicle construction and testing. That package represented a $3 million contract between Grumman and the Department of Transportation. The TACRV design was delivered by Grumman to the Office of High Speed Ground Transportation on March 9.

"This award is a significant step in our plans to generate new business in the civil sector," said Ron Spencer, Civil Systems Business Development manager. "Since March we have had temporary letter authority to construct the vehicle."

It is being built under Foreman Frank Massoni in Plant 4, with construction to be completed by the end of March 1972. Tests will then begin immediately on TACRV guideway at the Department of Transportation High Speed Ground Test Center in Pueblo, Colo.

Testing of the research vehicle at speeds up to 300 mph will be aimed at gathering technical data required later on for the design of passenger-carrying (TACV) systems. Specific areas for testing will include air cushions, vehicle aerodynamics, ride comfort, linear induction motors, and high speed electric power collection from the wayside power source.

Fundamentally the TACRV Program will determine the economic balance between vehicle sophistication and guideway precision for future operational systems. (The more sophisticated the TACRV system of springs, the rougher can be the guideway on which it runs.)

The research vehicle is approximately 51 feet long with a gross weight approaching 60,000 pounds with all the research gear aboard. It will accommodate four people: the operator, test engineer, and two observers. The guideway at the Test Center where TACRV will operate will be an oval of approximately 22 miles. The Office of High Speed Ground Transportation estimates the entire guideway will take three years to complete, but construction has begun and several miles will be available when the TACRV is ready to begin testing in April of next year.

The tracked air cushion vehicle (TACV) is an innovative concept, visualized by the Department of Transportation as a solution to inter-city and airport-access traffic congestion. The vehicle can be operated on a concrete guideway either high above the traffic or at ground level.

### Rides on air

TACRV will skim on a thin layer of air in a U-shaped channel, propelled by an electric linear induction motor (LIM) built by the Garrett Corporation for the Department of Transportation. For the research vehicle, three General Electric JT 15D-1 jet engines will provide both levitation air and sufficient residual thrust for over 100 mph speed. Later operational vehicles will use electrically driven air-supply fans, according to Sam Parkinson of Business Development.

"The track is constructed of poured concrete and was designed for Grumman by Sverdrup & Parcell," Parkinson said last week. "It incorporates various degrees of roughness to test our very sophisticated suspension system. One great virtue of an air cushion vehicle is that guideway maintenance costs should be much less than for conventional train railbeds. No contact with guideway: no wear."

Power for the LIM will be supplied from a wayside power "third rail." The turbo fans will power the lifting air cushions beneath the vehicle, as well as the guidance cushions on each side.

The nation's first linear induction motor designed for speeds up to 250 mph is now undergoing testing in a vehicle at the Department's Test Center on six miles of track already activated. The LIM for powering the 300 mph TACRV is being designed and built by AiResearch Corporation.

### Benefits Fund

"The Sound of Music," starring Constance Powers, John Michael King, Maggie Task, Nancy Eaton, and Christopher Hewitt, is the feature attraction again this year at the Jones Beach Theater. And Friday, July 16, has been designated United Fund of Long Island Night for the popular Rodgers and Hammerstein musical.

Regular-priced tickets are $2, $3, $4.50, and $5.90. If you are planning to see "The Sound of Music" this season, why not make it this Friday to show your support of the United Fund?

**Space briefing.** Before speaking to L.I. business group on June 25, Sen. James Buckley visited Bethpage to view Grumman facilities and update himself on various Company aerospace programs. Here, Senior Vice President Joe Gavin briefs the Senator on Space Shuttle activity. (Photo by Fred Annette)

# Buckley cites defense needs

"Can any country not afford to defend itself?"

The rhetorical question was asked by Sen. James Buckley, Conservative, of New York, during a Bethpage luncheon given by the Long Island Association of Commerce and Industry late last month.

Buckley's central theme was the need for a militarily powerful U. S. to keep the "balance of terror" internationally. He said:

"The simple and serious facts are that we cannot afford to slip behind. . . . the Soviet Union much further without the gravest peril." He sees U. S. power deteriorating now "vis-a-vis the Russians."

He indicated that to fall behind the Russian effort "is to invite a technological Pearl Harbor."

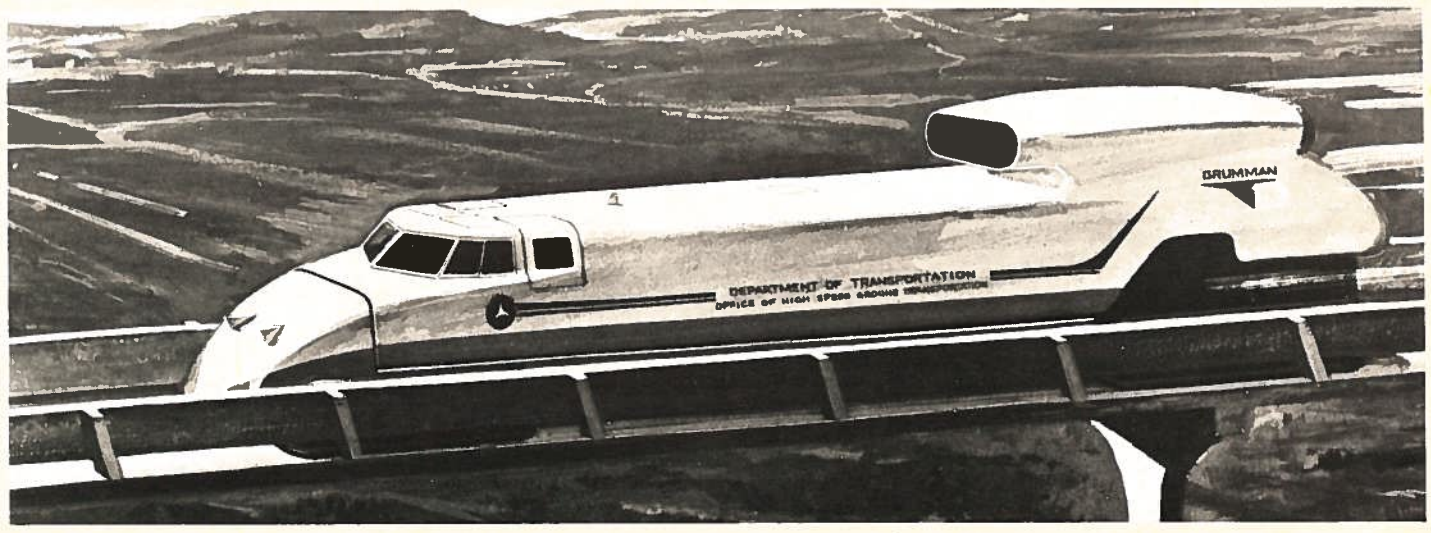
Senator Buckley's speech also scorched what he called "mindless palpable anti-militarism," and said the danger of an insuffiency of weapons is present. And he said:

"As long as human nature is what it is (and) some nations are aggressive by intent and history we need more and increasingly sophisticated weaponry."

The Senator spoke candidly of Grumman's F-14 Tomcat, calling it the only aircraft in sight capable of tangling with the Soviet Foxbat. He also spoke of Tomcat production cost growth, saying, "Let's face it. Anybody letting out contracts has been hit by enormous inflation. Inflation in the last analysis is caused by Federal mismanagement."

Instead of retrenchment, "blind cutting back" of military budgets, he urged increased spending to meet "international realities" and declared that "We must also broaden the scope of our research and developement of new and more exotic weapons."

So, unless military budget cuts were stopped and turned around, "it could result in drastic changes in American foreign policy and the inability of any American president to work to protect our interests abroad, whether they be in the Middle East or Western Europe or in the Pacific."




**Riding on air.** Grumman has received a $3.5 million contract from the Department of Transportation to build a tracked air cushion research vehicle (TACRV). Vehicle rides on a thin layer of air in a U-shaped channel, as shown in painting by Craig Kavafes. It is being built in Plant 4.

# Grumman gets go-ahead for Hawkeye production

WASHINGTON, D.C. — The Defense Systems Acquisition Review Council gave the Navy and Grumman a firm production "go" for the E-2C Hawkeye on June 24 following a presentation by Capt. Joe Pariseau on the development progress on the plane. While the DSARC decision signals the start of production, involving a total of 28 aircraft over the next three years, full program funding will not begin until later this fall. The Navy has already provided Grumman with $43 million in long-lead time funding for systems hardware.

The Defense Systems Acquisition Council Review had to evaluate the development of the E-2C to determine whether the systems hardware—radar, displays, etc.—were ready to commit to production. To do that, the defense council evaluated laboratory tests and flight data to determine the health of the program before committing the Government to the next development phase: full production start-up. These frequent reviews reflect the "fly before buy" philosophy of Defense Secretary Melvin Laird.

## Making detail parts

So the DSARC "turn on" has, in effect, turned on various Grumman plants in starting up Hawkeye production. Detail parts—some 3,000 of them—are being fabricated for eventual delivery to Plant 36 where the E-2 fuselage will be assembled. Wings for the Hawkeye will be supplied by the Stuart facility in Florida, and final assembly and flight test work on the Navy's new AEW plane will be accomplished at Calverton.

Last week, Captain Pariseau, the Navy's program manager on the Hawkeye, came to Bethpage to congratulate the E-2C team on its program win. And Tom Guarino, E-2C program director for Grumman, noted that "This was one of the shortest DSARC's in history. It's a real tribute to the tremendous effort by the E-2C team—especially over the last six months—in preparing the Hawkeye and its systems. We met some very tough milestones, 13 in all, while preparing this bird for the Defense Systems Acquisition Review Council. DSARC was impressed by the effort, the performance of the plane, and the team—and so was I."

The E-2C, a more advanced version of the successful E-2A and E-2B versions of the Hawkeye, will have some rather noteworthy improvements: a new overland radar, updated computer, new radar displays, and a new inertial guidance system. They add up to a far more capable Hawkeye, one that can detect, identify, and track aircraft over land (as well as over water)—a very vital contribution to Fleet defense when U.S. surface units operate near large land masses such as Southeast Asia and the Mediterranean.

In addition to its early-warning mission, the Hawkeye with its five-man crew is also an excellent intercept-control command post, and has even filled in on occasion in directing air-sea rescue missions.

Besides adding up to an imposing new avionics "suit" for the Hawkeye, the new systems improvements are expected to increase reliability of the plane many times by reducing turnaround time between flights, providing automatic problem isolation in "blackboxes," and making these systems easier to maintain.

Six months ago when Guarino was named E-2C director, he set three program goals: maintaining a very tight milestone schedule leading to DSARC; providing the Navy with a high-quality weapons system; and making a good overall profit on the aircraft for the Company. "We achieved the first goal with flying colors. Now we've got our sights locked on to the next two."

**Small Business award.** Ellanef Manufacturing Corporation of Bohemia, nominated by Grumman, was named Small Business Subcontractor of the Year for the New York-New Jersey area. At the award presentation recently were (L-R) Congressman Otis Pike, Mingo Logothetis, president of Ellanef, Carlos A. Villamil, SBA's region director (presenting the award), Sophocles Logothetis, and George Devine, Grumman director of Material. (Photo by Marie Trimborn)

**Hawkeye gets 'go.'** Capt. Joe Pariseau met with E-2C Program team members last week to offer congratulations on Government decision to turn on production of newest Hawkeye AEW aircraft. In photo above, Armand Iava, Pete Tyer, and Harold Allen are pictured in 'back end' of Hawkeye at radar consoles while preparing for test flight recently. (Top photo - Fred Annette; bottom photo - Bob Settles)

# 'Black Perspective on News'

Ozzie Williams, manager, Space Vehicle Development, will be on TV, Channel 13, Friday, July 23, at 6:30 p.m. in a half-hour show called "Black Perspective on the News." The show is a weekly feature that looks into black interests and problems—"the political, the economic, the social scene," says Williams. Three black journalists did the interviewing: Pat Patterson, editor of Blaek Enterprise Magazine; Pearl Bowser, reporter for the magazine Tuesday; Ida Lewis, reporter for Le Jeune Afrique.

"They were so anxious to make the interview 'spontaneous' that I never even met the panelists until we went on the air," Williams said. "They guided the interview. If I had it to do over again, I could deal in larger issues. As it was, the producer was pleased and did a minimum of cutting and editing. The questioners brought out the fact that I was doing 'something different' in my job at Grumman, and that the Company has taken steps (not enough, I feel, but some) to help black people.

"I'm the kind of militant who tries to work out ways of accomplishing change. Some people yell for change without suggesting how it could be done. . . . There's a long way to go to realize fully the potential in minority people."

Williams has been active in the American Institute of Aeronautics and Astronautics and became an associate fellow of the organization last year. At Salt Lake City recently he was elected chairman for 1972 of the Liquid Rockets Technical Committee of AIAA.

# Traffic note: deaths drop, collisions rise

For the first time in a decade, traffic fatalities in 1970 declined. From a total of 56,500 persons killed in traffic accidents in 1969, the 1970 total declined by 1,300 to 55,200 persons, report The Travelers Insurance Companies.

The number of persons injured in accidents, however, skyrocketed by 400,000 to 5,100,000 during 1970. And 3,733,000 of that total were injured in collisions with other motor vehicles.

Excessive speed is still responsible for a high rate of accidents. Over 39 percent, or 17,700 of the total number of traffic fatalities were due to speeding.

According to The Travelers, youthful drivers, under 25, also continue to be involved in more than one third of all accidents, fatal and non-fatal.

## Named to Legion post

Cornelius (Neil) Johnson, Grumman photographer at Plant 77, has been elected vice commander of an 18,000-member American Legion district in Florida. He has served as post adjutant, committeeman, and department historian. His wife and daughter are active in the auxiliary.

# About the cover...

It's an extraordinary building, Cape Kennedy's VAB (Vehicle Assembly Building), photographed for Plane News by John Boles. In it is all the framework, the many work levels required for assembling an entire Apollo vehicle—a vehicle that stands like a long, slim pencil more than 360 feet tall. Stage by stage the sections are built up and checked, and then — a somewhat incredible sight—the entire Apollo is moved by a specially-constructed transporter, at a pace of less than one mile per hour, to the launch site.

# Honor grads, select new groups for Professional Development

A luncheon honoring the first of Grumman's 1971 Professional Development Program (PDP) graduates was given by the Company recently, with Administrative Vice President John O'Brien presenting certificates to the group completing their two-year PDP in Business. Others have completed their semesters in the Engineering and Manufacturing options.

Working in PDP under the Manufacturing option are these recent appointees: Joe Burkowsky, in Operational Data Systems; Tom Conway, Product Support; William Czerniewicz, Operations Planning & Budgets; William Rose, Product Control; Robert Rothwell, Product Support; Anthony Sanz, Material; Otto Sauberg, Product Support; John Schneider, Engineering Associate Contracts; Louis Veprek, Subcontract Administration.

### Plan was expanded

PDP started out, in 1963, as "EPDP," a professional development plan for engineers. It was followed by a comparable program for manufacturing engineers in 1965, and two years later by a program oriented toward business. Last July came a consolidation, called simply "Professional Development Program," and administered by Training & Development. Vice President George Skurla is chairman of the PDP Policy Committee, Tom Reid is the manager, Ken Rodgers the administrator.

### Two-year study

Those selected to participate in the Professional Development Program spend two years in a sort of internship, dividing their time among, usually, four departments in the interest of broadening the scope of their knowledge and experience. The following, who received certificates in the Business option, are now assigned on a permanent basis to the departments named.

William Bruns, Budget Administration & Control; Michael Childs, Calverton Management Staff; William Dengler, Measurement Standards Planning & Control; Edwin Frank, Engineering Planning & Control; Leon Goldberg, GDS Marketing Representative; Peter Guthmann, Grumman International Research; John Harof, Materials General Purchasing; Lawrence Hennessey, LM Contract Changes; John Lynch, Manufacturing Planning & Control; Andrew McLaughlin, Subcontract Management EA-6B Program; Paul Sachse, F-14 Program acting foreman, Final Assembly; Lloyd Schilling, Materials & Processes Management; Kenneth Skoglind, Gulfstream Sales & Marketing Support; Robert Wattenberg, Corporate Services Special Projects.

The newest group under the Business option in PDP includes these seven, with their present work assignments: Fred Arlotta, Flight Acceptance; Robert Corris, Operations Planning & Budgets; Sue Dalva, Operations Planning & Budgets; George Graham, Quality Control; John Harbourne, Personnel; Louis Mattaboni, Material; Floyd Thomas, Business Development. Sue Dalva is the first woman to be selected for PDP.

### Other training programs

Grumman has other training programs that blossom this time of year: Masters Fellowships, a two-year work and study program; after hours and on-the-job training; Grumman Engineering Scholarships for outstanding high school seniors interested in aerospace engineering and related college careers.

Grumman's Training & Development headquarters have moved from Plant 38 to Plant 39, the former S/CAT facility to the rear of Plant 5, on Broadway, Hicksville. Plant 39 will be the focus not only for PDP, but for voluntary education courses and the Tuition Reimbursement plan.

**Angels on high.** The U. S. Navy's Blue Angels returned to Long Island Independence Day weekend to thrill more than 100,000 people with their display of precise aerial maneuvers. After one of the shows, Norm Gandia of Business Development (center, above), who flew solo for the Blue Angels a couple of years ago, chats with Lt. Jim Maslowski, the slotman in the Angels' diamond formation, and Lt. Skip Umstead, who flies solo for the Blues. (Photos by Fred Annette)

Photo by Dick Sander

## Preparing F-14 for 'stall' tests

After 36.7 flight hours in 18 separate successful flights—including five in-flight refuelings—Tomcat No. 2 is in lay-up in Plant 7.

During lay-up, the stall parachute to effect recovery will be installed. This, peculiar only to No. 2, is to help "level" the plane for flight, after it is deliberately stalled, and once that's done the 'chute is released.

The EPU (Emergency Power Unit), which provides a separate source of electrical and hydraulic power, will also be put in Tomcat 2 and 1-X.

Tomcat No. 2 is designed for low-speed and stall performance tests. The aircraft has already made 68 "mirror approaches" and touch-downs. That is, it has flown, touched down, and climbed into the air again using mirrors similar to those aboard a carrier.

All four test pilots assigned to Tomcat thus far—Chief Test Pilot Chuck Sewell, Bob Smyth, assistant director of Flight Acceptance, Bill Miller, and Don Evans—have flown the plane. They've found it performs well.

No. 2 is scheduled to fly on the 26th.

Tomcat 1-X is to fly in the middle of the month. That plane's main mission is to expand the flight (speed) envelope. A secondary role, just as important, is to measure the aircraft's aerodynamic flutter/damping characteristics: shaking the plane in flight to assure that it's flutter-free and, therefore, safe to fly.

## More records for Mohawk

Capt. Dick Steinboch and Chief Warrant Officer Tom Yoha are sitting on five unofficial world flight records they established with the Grumman OV-1C Mohawk last month and are probably wondering if there are any pilots around to dispute their claim. The two Army officers from the 293rd Aviation Company at Fort Hood, Texas, piloted the Mohawk to three time-to-climb speed records and two altitude marks while establishing records for Class C-1E, Group II—an aircraft group comprised of turboprop planes weighing from 6,614 to 13,227 pounds.

The records (all unofficial at present) set by Steinboch and Yoha: time-to-climb—3,000 meters, 2 minutes, 30 seconds; 6,000 meters, 5 minutes, 35 seconds; 9,000 meters, 10 minutes, 55 seconds; sustained altitude for 90 seconds, 36,500 feet; maximum altitude, 39,500 feet.

In 1966 another Grumman Mohawk set five flight marks for turboprop aircraft between 13,227 and 17,636 pounds. Army Col. Ed Nielsen, Lt. Col John Collins, and Jim Peters of Grumman established marks for time-to-climb (3,000, 6,000, and 9,000 meters) and speed and speed-distance records.

Assuming the latest five will be okayed for world marks, that makes 10 flight records held by the Mohawk. And for Captain Steinboch and CWO Yoha, the question is probably: "Any challengers?"

## Hydrofoils in Navy's future

Grumman was host last month to Dr. David Jewell of Naval Ships Research & Development Center, Lt. Chuck Raben of NSRDC, Hydrofoil Program officer, and Jesse Spurway, NSRDC Hydrofoil Mission manager, visiting Grumman's facilities to be used for designing and building the next generation hydrofoil.

Grumman's 15 years of hydrofoil experience and its whirling tank installation for foil research in Plant 12 seem to augur well for Company participation in the next phase of the Navy's hydrofoil program.

The Grumman PGH Flagstaff, a foilborne gunboat with six-inch howitzer, recently demonstrated its stability and speed in excess of 40 knots in a month of uninterrupted gunnery trials off the West Coast. Joe Barbetta of Business Development notes that the immediate plans of the Navy are for a patrol hydrofoil guided missile ship—"a next generation hydrofoil." Known as the PHM, it will be larger than Flagstaff (120, as compared to 75, feet) and will be armed with surface-to-surface missiles and an anti-aircraft battery. A Phase 1 design study will probably be awarded by the Navy in early 1972—and Grumman intends to be right in there.

## Long ago and far away

Remember Steve Eisenhauer, two-time All-American guard from the Naval Academy? He earned that distinction in 1952-53 and graduated from the Academy in '54. It's Lt. Col. Steve Eisenhauer now, and just recently he succeeded Lt. Col. C. A. Houseman as commanding officer of Marine Composite Reconnaissance Squadron(VMCJ)-1. Colonel Eisenhauer was awarded eight Air Medals and a Navy Commendation Medal for Vietnamese service.

And for the men of VMCJ-1, Iwakuni, Japan, may not look much like home but it's a good bet that they look upon it with a helluva lot more enthusiasm than they did in their last base of operations. That was in DaNang, South Vietnam. The Marines flew their last combat mission in South Vietnam just about two months ago, and the distinction for closing out Marine jet operations in that area went to an EA-6A Intruder crew, Capt. C. B. Lockett and Master Sgt. S. A. Gill. They flew the Intruder electronics countermeasure aircraft on May 7 in support of Air Force and Seventh Fleet planes. It was the final combat flight for Marine jet aircraft in Vietnam.

## LM in Smithsonian exhibit

To borrow, somewhat liberally, from a current ad, "When you say Smithsonian you've said it all."

For the Smithsonian Institution is one of the nation's premier museums as well as a research center. And what's there now should interest every Grummanite: a mockup of Lunar Module No. 5, the vehicle that Neil Armstrong and Buzz Aldrin used in Man's first manned landing on the moon.

LM-5 is no phony vehicle. Actually, it's a reconfigured LM-2. No. 2 was originally scheduled as a back-up vehicle for LM-1, but No. 1's flight was so good that the program skipped over No. 2 and went directly to No. 3. So that opened the opportunity to re-work No. 2 to make it an exact copy of the vehicle that first landed on the lunar surface.

That in itself makes it a prized possession of the Smithsonian. But there's a little extra involved, as mentioned by Frederick C. Durant III, assistant director of Astronautics at the Institution:

"It is rare that a museum has the opportunity to exhibit historical items such as the LM while they are still making history. The Lunar Module now takes its place among the other great artifacts of our aerospace heritage."

On July 15, there'll be a formal dedication ceremony at the Smithsonian. And as the new LM-5 sits in its place of distinction, a reminder of what can be done, you can look over its shoulder, so to speak . . . to LM-10, due to land on the moon July 30.

# Grumman team at KSC ready for LM-10 launch

KENNEDY SPACE CENTER, FLA.—In just 14 days (July 26), Apollo 15 is to be launched, and things are "go" for the flight that will place the men of LM-10 (Falcon) on the Hadley-Apennine area of the moon.

The current schedule calls for Falcon to be prepared for countdown preparations. After another inspection, the final countdown will begin.

On the 26th, the earth-shaking force of the Saturn V rockets will push Apollo away from its launch pad and toward a lunar course; only very bad weather will prevent the launch. All is in readiness.

The Grumman LM team at the Cape "is as finely tuned as any we've had, and maybe even better," says Wiley Williams, who is the manager of all LM operations at KSC.

Williams is a man not given to overstatement. Nor is his view parochial. He's seen both worlds—the National Aeronautics and Space Administration from 1960-1966 and Grumman since then. He appears to have an almost instinctive "feel" for both people and organization. He speaks warmly of the some 700 people here; he calls them "extraordinary people, truly fine, talented people. They have a willingness to go that 'extra mile,' without prodding."

Part of that fine rapport, he concedes, is what he terms "atmosphere." It's a tough concept to nail to the wall or place in a box for viewing and scientific measurement. Yet, there are words and phrases suggestive of what he means:

"Simple, direct organization. . . . A minimum of redundancies in staff . . . Visibility . . . Accessibility . . . An absence of bullpens: I try to break things up into small units so the individual has relative privacy and freedom to work. . . . It all comes down to a good work atmosphere."

As Williams points out, this kind of informal structure is hardly unique; many other organizations function in much the same way. But he'll mention, too, that there are solid benefits in productivity and esprit de corps when a fairly small group knows what it's doing and knows the goals. "I believe that that's part of the success of Grumman's work here at KSC."

That ties in well with the "track record" made over the years. LMs — as anyone at KSC is eager to tell you—get better and better. Chuck Kroupa, Grumman's director of KSC Operations, says "Grumman has an excellent team, both here and at Bethpage."

That was the assessment of Bill Eager, too, as he spoke of the KSC organization. Eager, who's manager of Test Support, says that "expertise and flexibility make for a clean operation"—and good in-house relations, as well. "And communications are fine, not only within the organization but between KSC and Bethpage. As Wiley (Williams) said, things are simple and direct, even though there are a lot of units in the organization—Safety under Jack Andrews, Engineering under Hobie Gilman, QC under Dom Pastore, Dick McLaughlin of Manufacturing, Hank Morfin, who's chief of System Engineering, George Dowling, who's chief Consultant Pilot at KSC, Spacecraft Test Manager Bill Looney. . . . I could go on and on. Some are big organizations; some are small; but all of them work together. That's how the place really functions."

Take Andrews' Safety function as an example. He has just eight people now to oversee test procedures, housekeeping, and the detection of hazardous situations (which he can order changed). He reviews operations, insures prevention of injury, identifies hazards, and sets up guidelines for test procedures—and makes sure that those guidelines are implemented. His team follows the action, wherever that may be, covering three shifts a day. The task is quite different from what was done at Bethpage for at KSC people are working with toxic fuels and gases and pyrotechnic devices—all highly hazardous. Yet, in a three-year period, Grumman, among 27 major contractors, has won the Kennedy Space Center safety award twice and has had the fewest lost hours due to accidents. Why? Says Andrews, "Attention to detail."

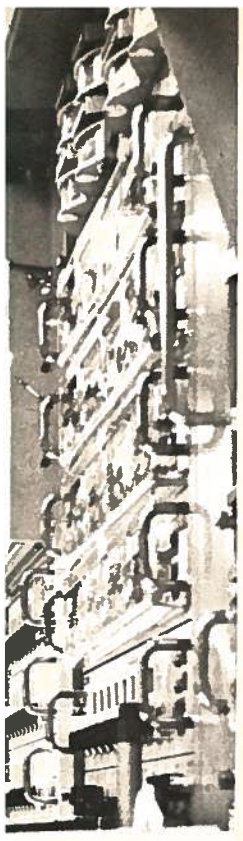
Then there are the STMs, or spacecraft test managers, who operate in a different manner. The STM for Falcon (LM-10) is Bill Looney, who describes himself as "an orchestra leader." Says Looney:

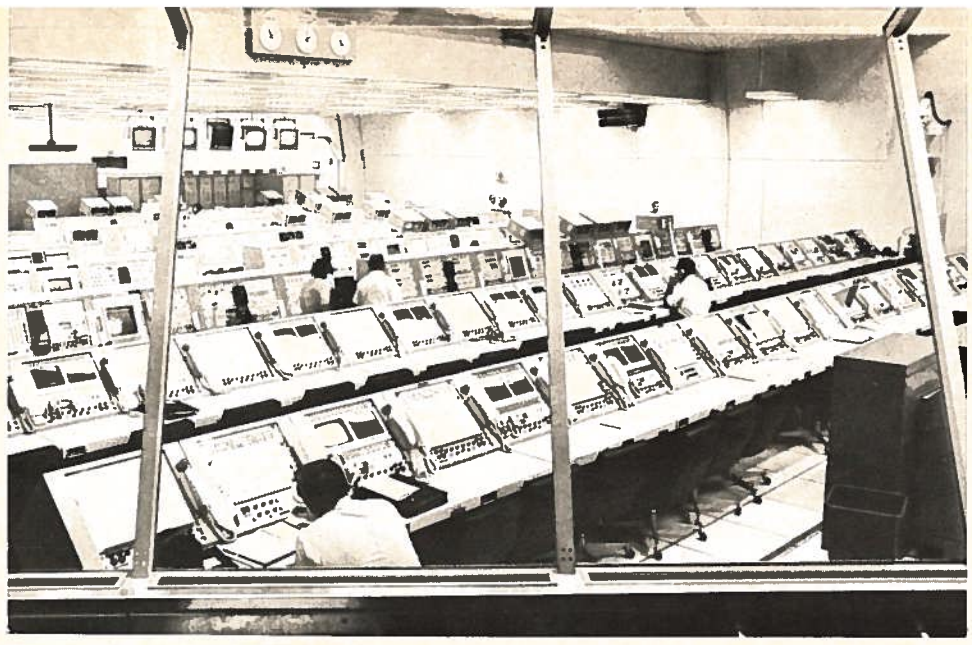
"There are about 15 separate disciplines or functional areas, like QC, shop vehicle engineers, and so on. I draw from them and make sure that everything plays right—as I say, like an orchestra leader.

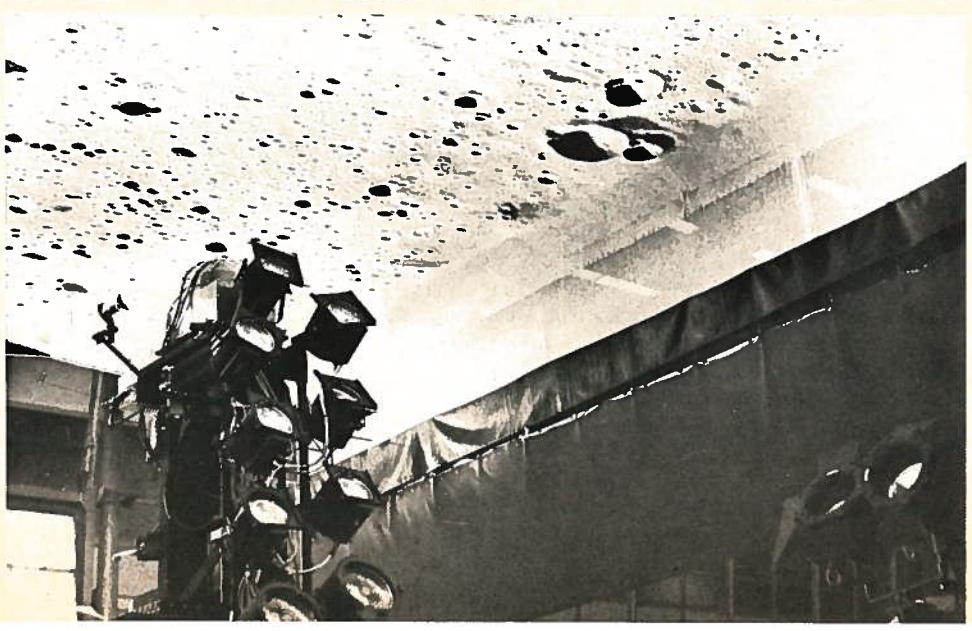
"About 50 people are involved in this three-shift STM operation. Our time schedules are nailed down to the minute. They have to be because we're dealing with six other major contractors: We can't infringe on their block of time, and they can't put ours out of whack. It's a real test of cooperation, doing what has to be done and doing it right on the button. To make it easier, there's a DLO (Director of Launch Operations) meeting daily, and we define what we're doing, where we're at, and when specific goal-points will be met. We plan for as long as two weeks ahead. I tell you, by going that way, we've seen a fine learning curve."

*(Continued on page 9)*

**All for Falcon.** **Activity at the Kennedy Space Center revolves around Lunar Module 10 (the Falcon) for the flock of Grummanites stationed 'where the action is' as they draw closer and closer to launch date, July 26. Capturing the action in both the offices and at the Apollo 15 stack was one of Grumman's roaming photographers, John Boles, who shot all the KSC photos.**







# Chuck Kroupa praises team effort at Cape

**Chuck Kroupa**

Grumman's director of Operations at the Kennedy Space Center is Chuck Kroupa, an intense man with 25 years in the Company and a quiet faith in his people and the job they've been doing on Lunar Modules.

For him, teamwork is not an idle slogan but **the** prime requisite in getting the job done. And "the team" encompasses everyone, not only his people at the Cape but all of the others who deal directly and indirectly with them. "I think in terms of the total team," he says. "You have to 'see' all of them, the Grummanites here, at Bethpage and Houston, the NASA people, and all of the contractors who have inputs to the LM."

If teamwork is the principal element in the LM effort, then running a close second for Kroupa is a phrase he keeps repeating: "meticulous attention to detail." He says "you can't overlook anything. You check things, and then you check them over and over again. You have to if you want to be sure—and we **have** to be sure."

This insistence on accuracy and follow-through may be a character trait "built in" at birth, or as a result of experience (such as 10 years of flight-test work and service with the Air Force in the '40s), or both. It really doesn't matter, in a sense, for whatever the origins, the attitude is there, and apparently unshakable. It has stood him in good stead in the Air Force, through 10 years in aerodynamics, and four years as assistant base manager under Vice President George Skurla, who headed up Grumman operations at the Cape until this past year.

In fact, many see a close similarity between Skurla and Kroupa—intenseness, drive, thoroughness **and** a deep concern for his people. One doesn't sit long with Kroupa without learning how much he values his staff. "I'm most impressed with the integrity of all of our people, the long and hard hours they've put in perfecting LM, and the way they pitch in and help one another.

"Communications are good, and the logistic support from Bethpage has been excellent," Kroupa continues. "That's all attributable to our people. They're the best in the business!"

With that type of endorsement, Kroupa must feel confident about the Apollo 15 LM-10 flight. "Yes, I do," he said. "We've got a good bird here. We expect it to perform well. We know that this is going to be the most difficult LM flight so far. Instead of coming in for a lunar landing at about 16 degrees, as the others have done, Falcon will come in at approximately 25 degrees and land after passing over a high mountain.

"Then there'll be three EVA's, one of two hours and 25 minutes, a second of five hours and 31 minutes, and a third of four hours and 33 minutes. By using the Lunar Roving Vehicle, the astronauts will be able to travel about a total of 22½ statute miles. That significantly increases the length of any previous lunar traverse.

"Also, something really new has been added. A TV camera mounted on the LRV will be stationed some 300 yards from the landing site and actuated remotely from Mission Control Center, Houston, to take photos of the ascent from the lunar surface."

Yes, Kroupa is positive about the mission . . . and so is the team.

# Vosefski detours Road Runners as Monopoles breeze to 9-0 win

There is such a thing as economy of effort, but what Joe Vosefski did the other evening is stretching things a bit. Pitching for the Monopoles in the Monday after-hours loop, Joe zapped the Road Runners 9-0, **on just 32 pitches.** Of course, he did have help. Tight infield play by team mates Mike Gabriel, Joe Calandra, Bob Savasta and Charlie Dietz resulted in two double plays, and Pete Vitteritti, Mickey Rowles, and Rob Ogilvie made some outstanding saves in the outfield.

Vosefski limited the Road Runners to six hits, all singles, and with a defense like that never got into any trouble. Mickey Rowles homered, and Bill Foote smacked two doubles and a triple to pace the Monopoles to their fourth straight win in the league. And for most, the big question probably is: Who did the counting on those pitches?

Has success spoiled the Twisted Ducks? Judge for yourself. After going winless in the 1969 and '70 seasons, the Duck surprised everybody (including themselves) in the Monday night loop by copping their first two tilts of the year. But, alas, the effort or the shock must have been too much—the Twisted ones find themselves back where they started—on the short end of a long score. Research applied the first shaft, 7-1, as Charlie McLaughlin and John Lisa provided the batting punch and Norm Dvoskin contributed his 15th consecutive league win. The Vikings drove that shaft a little deeper the following week with a 15-4 victory. Harry Martinucci, Ken Soldwedel, and Ed Fitzgerald were the key hit men.

### Oldtimers still going strong

Talk about longevity. A little more than 20 years ago, Frank Jagiello was zipping his fast ball across the plate for the Grumman Yankees, helping that fast-pitch squad capture a couple of Mid-Atlantic titles along the way. Now Frank's tossing them across the plate in the Plant 1 slow-pitch loop, and, naturally enough, is a member of the Old Timers. No snickers, please! Frank and the rest of the Old Timers just wrapped up the first-half crown on 12-10 and 3-0 wins over the Invaders and Flight, respectively. Jack Caulfield and Tony Bolomey provided the batting punch, and the guy who threw the 3-0 win was another old timer of Peconic fame, Stan Musinski. . . . In the Plant 5 night circuit, the S/CATS clipped the Husslers (sic) 14-5 as John Lampasone collected four hits and Tony Doleeck rapped two triples and an inside-the-park homer.

Things went about even-up for the Boppers during a 13-4 loss to the Soul Brothers Plus in the Wyandanch loop. They made eight hits—and they made eight errors. That will hurt you every time. When manager Sherm Jacobs, Soul Brothers collected 19 hits, including homers by Don Seagraves, Ray Lavelle, and Tony Alaimo, it assured the Brothers of an easy victory.

### Ouch! Simulation smacks Bad Guys

The Bay Guys must have been hallucinating when they selected their name. Some bad guys are really rough and tough, but the ones in the American division of the Tuesday after-hours loop had better start taking ugly pills judging from their recent encounter with Simulation. All Simulation did was rack up 38 hits in a 38-5 victory over the Bay Guys, as Joe Nieves and Frank Prisco smacked homers, and Jim Jimitry, Joe Nieves, and Paul Bavitz hit triples. The win pushed Simulation's record to 4-0 in the loop. . . . After an 11-1 win over ILS, it looked like the Woodpeckers were on their way, but the Mets ended that streak the next week with an 11-10 win. Don Richroath and Bob Gottehrer added key safeties to pace the Mets' win while Al Kocka of the Woodpeckers hit for the circuit. Earlier, Rob Ogilvie homered in the win over ILS. . . .

Larry Haskel bid adieu to the Tuesday night National league with a grand-slam homer as the OAO Stars slipped past the Supporters, 15-12. And for those who think life doesn't really begin at 40, catch the antics of Al Weston and Nick Giovanos. Nick won his fourth straight for the Stars to keep his team atop the circuit, while Al, who happens to be a couple of years older than Nick, celebrated his 46th year with three hits against the Supports. . . . Later, the Stars edged the Tigers, 13-6, as Al Grillo homered in his four safeties, and Nick Giovanos, besides collecting his fifth straight win, contributed three hits. . . . After absorbing a 16-7 loss to the Tigers, the Titans went on to clip the Mohawks, 26-9, on power hitting of Larry Hill, Hector DelValle, Bob Verzera, and Charlie Savetteri. Bill Dargis had two homers for the Tigers.

### Whiffles win, and they like it

The Whiffles found out what a difference a day makes (or in their case, a week). Just seven days after they had been over-run, 28-5, by the Shadows in the Thursday night circuit, the Whiffles came back to drop the Hustlers, 11-8, thanks to three homers by Les Spence and another by Bill Sikorsky. It was the first win for the Whiffles, and, undoubtedly, it came at a propitious time in the schedule. After all, there are bound to be some doubts following a 28-5 bouncing. By the way, the Shadows clouted four round-trippers in that one with George Dochat, John Slonaker, and Bruno Sidor (2) supplying the thumps. . . . And who would have given a farthing for the Jets' chances after they fell behind, 10-0, to the Rangers in the same loop? It was a long shot, but the Jets kept their win streak intact by scoring 11 runs while keeping the Rangers scoreless to sneak off with an 11-10 victory. Big guns for the winners were Brian Scheu, who had four hits, Tom Ramberg, who supplied a two-run homer, and Jerry Rainford, who contributed three hits, including the one that drove in the tying and winning runs in the bottom of the seventh.

## End of the line

The string ran out for the Grumman Intruders in the final game of the Rhode Island Invitation Tournament held at Providence a couple of weeks ago. Going after their fourth straight tournament title, the Intruders picked a tough way to accomplish it. They lost their second game in the two-defeats-and-out tourney, went on to win six straight games to qualify for the finale, and then edged LILCO 1-0 to set up a head-to-head meeting for the crown.

But that's where the string ran out: LILCO bombed the Intruders 13-0 in the last game to grab the title for the first time. Joe Stalza played every inning in the tourney, fielded flawlessly and batted .370. Selected on the tourney all-stars from Grumman were Joe Cavalluzzo, Hal Manaskie, and Don Lundergan.

# Tee varsity tops three L.I. teams

While running off three straight victories in the L.I. Industrial circuit, the Grumman golf varsity got a bit of a scare two weeks ago before edging LILCO, 4½-3½. Steve Gray and Jim Alverson swept their four points in the 1-2 positions, but Tony Cisco and Willie Suppa ran into tough going and were able to salvage only one-half point in their match. It wasn't much but it was enough to break a possible tie.

Tony and Willie ended up with 52 for 12 holes, four over par, while Gray carded 53 and Alverson 55.

Against Republic, Grumman collected a 5½-2½ win, with Suppa and Cisco again ending up with identical scores, this time 53, while earning 3½ points for the team. Steve Gray's 53 and Larry Anderson's 59 gained a 2-2 split in the other match.

Team captain Jim Alverson paced an 8-0 triumph over Photocircuits while playing the Black course at Bethpage State Park by firing a two-under par 47 for 12 holes, which included two birdies and an eagle-2 on the 337-yard 14th hole. Other scores included Suppa's 52, Anderson's 57, and Caesar Roscigno's 54.

## Pistol prizes

Winter Pistol League competition ended recently and Grumman shooters were on target. Harry Moles captured Center Fire division high master honors with an average of 283.33, Howell Fesq took high expert with a 247.12, Phil Boehm dominated as high sharpshooter with an average of 252, and Ingeld Henrickson fired 166.87 for high marksman.

In the Rim Fire division, Al Berka won with high master at 276.64, Dave Rice high expert with a 276.35, John Crawford high sharpshooter at 258.07 (and Boehm second), and Ed Bennett high marksman with 246.10 (and Henry Shoten second).

**Charlie Selock**
*Scores first ace*

# *Selock sparks golf circuits*

There's a lot of symbolism going for Charlie Selock, foreman, Central Receiving, Plant 24. . . .

In the first place, he golfs in the Lunar Links League, an indication of just how far up and away those mortals are. If this isn't enough, he's a member of a team modestly called the Aces. And to prove that Charlie's in the swing of things, what does he do? For true: **He fires an ace!**

That's really overdoing it a bit.

It all happened on the Hauppauge course, on the par-3 145-yard fifth hole. Of course, the area had been well marked out for him: For in this foursome, Jimmy Nelson teed off and put his ball some eight feet from the pin, Tony Carioli left one 12 feet away, and Chuck Warren was 20 feet away.

Charlie surveyed the scene, drew out a 9 iron, and stroked the ball . . . up, up. . . . and on one bounce that white pellet dropped plunk in the hole. After 21 years of trying, Charlie got his ace.

### Herman stands out

John Herman had a hot iron in his hand during recent play in the Program Management loop at Hauppauge Country Club. Herman signed in with a 38 and 39 (par is 36) in the last two sessions, while Cliff Miller shot 39. First-half medal play winners were Charlie Weizenecker (Flight A) and Woody Russell (Flight B).

### Vitale leads Runamucks

In the Runamuck league, Carmine Vitale paced the field with a 40 over the first nine holes of the Green coure at Bethpage State Park. Tom Toner, two strokes back, chipped in a birdie-2 on the third hole, **and halved the hole,** while Roy Kudrzycki registered 43 for the round.

Joe Sherry's 40 for nine on Dix Hills stood out in the Business Office golf circuit. . . . Winners in the EDP loop's first-half tourney at Bethpage included Joe Masciarelli, George Burmester, George Capua, and John Malone. Longest drive: Lew Simpson, closest to pin, Bob Kelly.

# KSC team awaiting launch of Apollo 15

*(Continued from page 6)*

The method and the story almost repeat themselves elsewhere, as in Dom Pastore's Quality Control section of about 125 people. "Anyone who's in QC," says Pastore, "works in a fishbowl. You can't hide a thing; that's the last thing you can do. After all, you have to protect the astronauts, and in doing that, you have to check on all hardware and procedures. Everything's right out on the table, where everyone can see.

"That makes us—like others—a close-knit group. In addition, we work on cross-pollination of ideas. A KSC man goes to Bethpage and vice versa and we bounce ideas off each other. That way, we don't stagnate, we're always in motion. I think it's paid off on the job, and I think NASA notices it, too."

Perhaps an outsider (or even an insider) would see this cooperative intertwining of skills and teamwork best, maybe most dramatically, through the work of Grumman's three KSC consulting pilots. As George Dowling, who heads the crew, explains, "Professionally, we look at the LMs in a different way, with an operational flight crew attitude. We're the alter egos of the astronauts and we view the process just as though **we** were making the flight. We look at the hardware; we look at every subsystem; we analyze the particular LM's characteristics, for each one is a little bit different from any other. On top of that, we try to evaluate each significant item in terms of its possible impact on a flight. For instance, we ask, 'How would this or that affect me if I were the astronaut?' By looking at it that way, we try to eliminate all the little things that might bug the crew.

### No surprises

"Of course, this isn't just a train of imaginings. We work directly with the real article and compare the real flight item with what is being used in simulation by the astronauts. If the real thing differs from the simulated item, we naturally advise the astronauts. We can't let them be surprised."

Everything that's gone before—the checking and rechecking, the testing and retesting—points toward the same end: preventing surprises for the astronauts actually flying the mission. Or, to phrase it differently, the job is to make a LM flawless.

Thursday the 24th's FRR (Flight Readiness Review) was just about that—almost flawless. The glitches that showed up were few, and all were easily correctible. And Peg Hewitt (among others) at the ACE station in KSC, now thinks about the precountdown at T-123 hours . . . and later, **the** countdown beginning at T-102 hours with built-in holds.

It seems that all is well, everything set for "go" on the 26th . . . and some may experience a twinge of excitement. Those who are "on top of the program," so to speak, seem as thrilled as they were during the first moon landing (though they conceal it). People like Jerry Goldmacher, for instance: Whether at KSC or Bethpage, Jerry, who is director for LMs 10, 11, and 12, exhibits convincing cool. He smiles and simply states history: Each LM has been followed by an even better LM. Sure, the coming mission is tougher than any so far . . . more difficult to land the LM because there's a moon mountain almost as high as Pike's Peak that LM must pass over . . . more difficult because there are three EVAs on the list this time instead of two, and mission length has been extended. Like the astronauts, Goldmacher believes this will be the best of all LMs.

## Flight crew

Coming up in the last days of July is the longest and potentially the most fruitful Apollo-LM mission of all so far. As Al Worden, Command Module pilot, circles the moon, David R. Scott, Apollo 15 commander, and Jim Irwin, LM pilot, will not only walk but they'll ride in a battery-powered Lunar Roving Vehicle, making it considerably easier to get around the lunarscape. Since there are three periods of Extra-Vehicular Activity rather than just two, as previously, lunar research should yield abundant material and data.

**On target.** **Grumman Gophers, perennial champs of L. I. Industrial league, retired another 'Jake' Swirbul Memorial Trophy this season. Captain Warren Block displays the team trophy while lined up are Herb Steinberger, Bob Mansbart, Bob Lang, Al Adler, Hans Forsch, Al Burns, Joe Russak, Hank Womble, Ed Brandis, and George Hilton. Also on the squad are Joe Anckner, Gordon Groenewold, Dick Imgram, and Henry Shoten.**

# Communications reports big savings using leased phone lines

A study of Grumman WATS (Wide Area Telephone Service) shows clearly that WATS leased circuits save the Company substantial money—more than $71,000 for the month of May, for example, as compared to what conventional long distance tolls would have come to over the same period. "The saving could have been more, though," says Telephone Services Manager Al Zoitke, "if everyone had used the WATS to full advantage. For example:

"Always use WATS to call the western states listed on page IX of the Grumman telephone directory.

"Before 11 a.m. local time, WATS can be used to call all eastern states except New York. Schedule your calls to take advantage of this.

"The average length of a WATS call is now 7.3 minutes. If the length of call were reduced to 4 minutes there would be no wait for a WATS trunk. Prepare your information before you call, and limit your conversation to business.

"Be patient when trying to reach a WATS (56) trunk. The easier way (conventional toll lines) is the expensive way.

"For additional WATS information, see page IX of the Grumman directory."

## Father and son story . . .

There have been days—and every golfer has them—when Joe Barbetta was ready to toss every one of his clubs into the nearest lake. Although Joe, who works in Business Development, Plant 5, still has his problems on the course, he's beaming since his son Joe Jr. turned in a sizzling course record during play in the southeastern sectionals of N.Y. high school play.

Playing at the Nevele Country Club at Ellenville, N. Y., young Joe registered a 3-under par 68 in opening-day competition, scoring a 6-under par 29 on the back nine of the 6,520-yard layout. **Six under par!**

That afternoon, the Smithtown High senior signed in with 77 for a 145 total, one stroke back of the leader in the 36-hole play.

As you've probably guessed, Joe never plays his son without getting as many strokes as he can finagle.

## Counseling for vets

If you're a veteran and if you have questions concerning VA loans, insurance, benefits, or the like, you'll probably be happy to hear that Grumman is once again going to have the services of a veterans' counselor starting July 15. Starting on that date, and on every other Thursday after that, there will be a veterans' counselor at Plant 2.

Should you want to get in line early, call Al Kordula of the Grumman Ex-Service Men's Club, Ext. 87259 or 84221 and set up an appointment for July 15. After that, call the counselor, Bob Regan, directly on Ext. 2814 on alternate Thursdays. If you forget the dates, keep Al's phone number handy—he'll be glad to help out.

## Fun or sun glasses?

You behind those sunglasses—do you suspect they aren't really as good as they ought to be? Check these pointers from Bausch and Lomb, well-known manufacturer of lenses:

**The lenses** should be precision ground and polished, and since plastic cannot filter out infrared rays, optical glass is necessary for complete eye protection. Properly formulated, it eliminates both ultraviolet and infrared rays.

**Lens color** for best color perception and least color distortion is neutral gray or sage green.

**Prices** for quality sunglasses start at about $10. Be sure the manufacturer is reliable.

**Clip-on sunglasses** add extra weight and do not give adequate coverage.

**A good frame** has earpieces with metal cores to allow bending them for comfortable fit.

Polarizing sunglasses, favored by fishermen and sailors, are available at about $30.

"Fun glasses" protect eyes against dirt and wind, but not against glare from the sun, on bright cloudy days, on the beach, or for outdoor sports when maximum vision is needed in bright sunlight.

## Car Pool

**SYOSSET:** From Oceanside, 7:30-4 p.m. 536-4330.

**WHITESTONE:** And Throgs Neck bridge. 212 423-4097.

**PERTH AMBOY:** N.J. thru S.I., Verrazano bridge, Belt Pkwy., S. State to Plt. 5. 201 826-5871.

**OCEANSIDE:** Baldwin area to Plt. 34 complex. 546-5489.

**LITTLE NECK:** Floral Pk. or Bayside area to Plt. 5/25, 8-4:30. John Iaizzo, Ext. 2352.

## Ride Wanted

**W. BABYLON:** To Plt. 40, 8-4:30 p.m. 669-7599.

## Wanted

**ROOMMATES:** 2 girls to share summer studio apt. in Hampton Bays, nr. everything, $170/ea., $20 refund end of season. LI 1-1626.

**PICKUP TRUCK:** ½ ton, '65 or so, must be in gd. run. cond., $600-$700. 475-6117.

**RHYTHM AMP.:** Used 10R10, mod. 25-RA, operating cond., or repair., reason. IV 6-6483, after 5.

**APT.:** 3-3½ rm., W. Nassau area, yg. work. couple, Aug./Sept. occup. MO 7-2686.

**CB RADIO:** Gd. cond. 231-6754.

**ROOMMATE:** Man to share unfurn. apt. in Mineola w/another man, reason. 742-0458, after 6.

**CAR:** Cheap, for transportation, to & from work. PY 8-8338.

**BOAT:** Sportyak. OR 6-3625.

**FILTER:** ¾ or 1 hp for 24 ft. above ground pool, pref. earth type. 669-2656.

**APT.:** 2½-3½ rm., pref. Nassau or W. Suffolk, bus. couple, $150-$170/mo. PY 9-6024.

**APT.:** 3-3½ rm., W. Nassau, Aug./Sept. occup., yg. work. couple. MO 7-2686.

**ROOM:** Furn., pvt. ent., immed. occup. MY 4-2962.

**APT.:** 3 rm. unfurn., nr. Grumman, W. Suffolk pref., for sgl. man., $150/mo. 541-5959.

**SAIL:** Dacron work. jib from 18-22 ft. sloop. 661-4862.

**ROOMMATE:** Female to share lovely home in Syosset w/1 or 2 girls. WA 1-1437, after 6:30.

**APT.:** Sma. unfurn., in Syosset, Jericho, or Hicksv. area for bus. woman. IV 1-5927, after 6.

## For Rent

**HOUSE:** Happauge-Smithtown, 4 bdrm., 2½ bath, fam. rm./firepl., $390/mo., ref. required. 265-7420.

**HOUSE:** N. Babylon, 3 bdrm ranch, 2 bath, firepl., bsmt., attach. gar., fenc. bk. yd., $300/mo., avail. 7/1. 667-7931.

**ROOM:** W. Farmingdale, lrg. semi pvt. bath, nr. Grumman, gent. pref. CH 9-2873.

**HOUSE:** Westbury, Hicksville, lrg. comb. bdrm. & liv. rm., pvt. ent., bath, kitchenette, carpet., TV, air cond., linens, references. 334-0022.

**APT.:** Hauppauge, 3½ rm., air cond., terrace, avail. Aug. 234-5636.

**ROOM:** E. Meadow, lrg. furn., pvt. ent., TV, bath, refrig., nr. shops, gent. only. 333-7849.

**ROOM:** Furn., nr. Grumman, gent. only. WE 1-0691.

**HOUSE:** Catskill Mts., furn., 3 bdrm., $90/wk. 427-5364.

**HOUSE:** Northport, 3 bdrm., 1½ bath, gar., 1 yr. leass, $300/mo., avail. Aug. 1. AN 1-9149, after 6:30.

**TENT TRLR.:** Camp., slps. 4, Universal auto hitch avail., $7/day, $15/wkend. CA 1-3625.

**HOUSE:** Bethpage, 4 bdrm., 2½ bath, fin. bsmt., all appli., w-w, unfurn., lrg. corner plot, $450/mo. 433-6886.

**ROOM:** E. Meadow, lrg. furn., pvt. ent., bath, TV, refrig., 1 blk. from shops, gent. only. 333-7849.

## Found

**ID BRACELET:** Silver w/initials JW & inscript. on bk. "Love Doris", Plt. 6. PA 7-2205.

## Free

**HOUSE CAT:** White, 1½ yr., altered, de-clawed. 864-6433, after 4, will deliver.

**KITTEN:** Gray & blk. tiger, fem. 585-3612.

**KITTENS:** 293-6792.

**KITTENS:** 3 gray striped, 1 blk., all pan train. 423-3967.

## For Adoption

**KITTENS:** 2 blk. male, 8 wks. 598-1525.

**GUINEA PIGS:** Four, 2 wks. 929-6732.

**DOG:** Mix. beagle-dachshund, 9 mo., all shots, gd. w/child. 732-6604.

**SHEP. COLLIE:** Mix., fem., 10 mo., all shots, gd. w/child. 732-0354.

## For Sale

**COUGAR:** '70 XR-7, 15,000 mi., rac. grn. w/wh. vinyl tp. & int., air cond., stereo tape, all options, $3,200. 938-6140.

**MISC.:** 36 in. hi., Link fence driveway gates, 2, 5 ft. sect. w/2 in. diam. post, $20; wood. clothes closet, 2 dr., shelf, hanger bar & casters, 66x34x24, $24. PE 1-7406.

## For Sale

**PONTIAC:** '67 Firebird, auto., R&H, fact. air cond., vinyl tp. & int., red stripe, wide ovals w/ xtra poly snows, stud. & mtd., pwr. steer., $1,450. 433-8797.

**CHEVROLET:** '63 Impala, V-8, 283 c.i., red, pwr. steer., auto., 4-dr. sed., radio, 2-spd., w/w, recent tuneup, ask. $225. 588-6366.

**BUICK:** '68 Spec. deluxe, 6 cyl., auto., pwr. steer., radio, new batt., carb., shocks, muff. & pipe, orig. owner, $1,350. 567-5625, evgs.

**VOLVO:** '65, 122S, 2-dr. sed., radial tires, AM/FM, $650. 234-1756, after 5:30.

**FORD:** '63 Fairlane 500, 4-dr. sed., 59,000 mi., V-8, pwr. steer., vinyl int., WSW, std., $325. 922-5992.

**MOBILE HOME:** '69 Nashua, 52x12, 2 bdrm., comp. kit., full bath, w-w, cathedral ceil. liv. rm., fully furn., wash/dry. 234-9341.

# at your SERVICE

**This is a free service to Grumman personnel for non-commercial advertisements, accepted on a first-come, first-served basis. Classified advertisements are carried in PLANE NEWS only on the basis that everyone replying to such advertising will receive fair and equal consideration regardless of their race, creed, color, or national origin.**

**Type or print ad on form available at Employees Service and Engineering counters, and send via interplant mail to PLANE NEWS, Plant 5, Bethpage. List home phone (with area code if outside Nassau or Suffolk). Limit: one ad per person per issue. No item under $10, no firearms or ammunition.**

**MISC.:** Craig mod. TR 490 Electronic Notebook, record. & mikes (2), 6½x3 ¾x1⅜, $25; Norelco mod. 2200 tape player, $15. CH 9-1052.

**CAMERA:** Kodak Retina Reflex IV f 2.8 lens, auto. exposure cont., lea. case, $75. 433-5819.

**TRUMPET:** $25. 587-9387.

**MISC.:** Hewlett-Packard mod. 400D vac. tube voltmeter, $100; Varian mod. G-10 chart record., $100; Miranda mod. F 35mm SLR camera & case w/50mm f 1.8 lens, $100; Revere mod. CA 8 8mm mag. fully auto. elec. eye zoom movie camera, $50. 825-6436.

**GUITAR:** Contessa, $100. 421-2307.

**BABY CRIB:** Spr. & 104 coil matt., $10. IV 1-7151, after 6.

**MISC.:** Rotisserie Blk. Angus, king sz., $25; iron mangler, $20; 3 dwr. bureau w/mirror, $15. 334-0493.

**MISC.:** Sterling piano, 2 yr., $450; Sears dehumidifier, $25. AM 4-0215.

**MISC.:** 2 contemp. chrs., $15; 1, 2 mirror-in-wall chrome medicine chest, $10; playpen, metal & nylon; Federal photo enlarger w/trays & access., $10. LT 9-3762.

**TYPEWRITER:** IBM elec., exc., B mod., $165. 203 227-9613.

**SPARE PARTS:** Major & minor for Norge mod. AWF 3222/3232 wash. mach., $10. 757-0438.

**SILVER COINS:** U.S., ½ dollars, quarters & dimes, misc. coins, face value $300, make offer. 893-1685.

**GOLD. RETRIEVER:** Male, AKC, 12 wks., all shots. 333-2173.

**BOAT:** 16 ft. fbgl. hull Fabuglas, 55 Triumph Evinrude, fold-bk. seats, comp. instru. panel, full canv., CG appr'd., life preservers, $2,000. IV 9-7763.

**PUPPIES:** Poodle, AKC, 1 male, 2 fem., brown, blk. & silver, 10 wks., reason. 727-6346.

**BOAT:** 16 ft. runabout, '56 Trojan, Sea Queen deluxe mod., 75 hp outbd., '66 McCullogh, elec., remote, bail-a-matic, little Dude '61 trlr. w/lgts., ask. $900. 796-0617.

**MISC.:** 2 rotary lawnmowers, nd. work, $12; 2 14 in. rims for '64 Chevy Impala. 269-6573.

**TRAINS:** Lionel, 2 diesels w/cars, 2 steam locomotives w/cars, trks., transformers, switches, xtras, best offer o'$150. PI 6-0593, after 6.

**MISC.:** Bench lathe, Van Norman, ask. $60; oscilloscope, Sylvania 7 in., ask. $35. PR 5-0075, bet. 6-9 p.m.

**AIR COND.:** 6,500 BTU, Westinghouse, 110 line, 2 mo., $90. 293-3894.

**HOUSE:** Lindenhurst hi-ranch, mother/daugh., 8 rm., 2 car gar., 75x100, xtras, low 30s. TU 8-7309.

**CHEVELLE:** '70 Motion, SS454, 450 hp, Hooker hdrs., Lakewood bars, chrome sprint mags, turbohydro, 4.10 posi, AM/FM stereo, vinyl tp., tilt. steer., pwr. steer. & disc bks., $3,000. 293-4760.

**WASH. & DRY.:** Kenmore, lrg. cap. dryer, 3 yr. w/ permapress cycle, wash. on casters easily conv. to port., $75/ea. 234-6680.

**MUSTANG:** '67 wh. hdtp., 8 cyl., pwr. steer., auto., radio, low mi., xtras. 226-8766.

**CAMPER:** '64 Nimrod, stove & heater, xtras. 921-0865.

**HAM EQUIP.:** Hallicrafters, SX101A ham band receiver, $150; 2 meter Nuvistor conv., $15. 744-5087.

**PUPPIES:** Boxer, flashy fawn, AKC, champ sired, gd. health & disp. OV 1-7381.

**GTO:** '68, 400 c.i., 4-spd., 4-bbl., 355 posi rear, $1,250. 681-8024.

**SAAB:** '63 Monte Carlo GT, Pirelli radials, 3-carb, disc bks., $550. 427-9678.

**VW ENG.:** Comp. rebit. '64, 40 hp, installed, $150. 273-6239.

**RIMS:** 1 pr. Rambler, $10/pr.; 1 pr. 14 in. Ford, $10/pr. MY 1-5948.

**HOUSE:** Dix Hills, 4 bdrm. hi-ranch, w-w, 2 car gar., s-s, FHA mtge. appr'l., all appli., $34,500. JU 6-7927, evgs.

**HOUSE:** Pt. Jefferson village, 9 rm. 2 story col., 1 acre, 5 yr., 2 full bath, 2½ car gar., firepl., 4x18 pool, $1,092 tax., $55,000. HR 3-9098.

**SAILBOAT:** '68 Aqua Cat, trlr. WE 1-7089.

**PACEMAKER:** 29 ft., twin 125 hp Chrysler Crown eng., new paint, in water, rdy. to go, $1,500. 543-2041.

**OLDSMOBILE:** '64, 98, pwr. steer., bks., & wind., $500. MO 1-0136.

**FISH. BOAT:** 18 ft. wood-fiber btm., '69, 40 hp eng., elec. start., Navy tp., trlr., xtras, rdy. to go., $700. 212 525-3787.

**BOAT:** '62 Crestliner fbgl., 14 ft., 28 hp Johnson, '70 Holsclaw trlr., 2-6 gal. tanks, cush., access., new Navy tp., $795. 676-3776, after 5.

**HOUSE:** Albertson, 3 bdrm. cape, 2 car gar., fam. rm., bsmt., alum. sid., s-s, w-w, new gas heat, new appli., xtras, $43,000. 742-1877.

**MISC.:** Surf rod & reel, $25; Shetland fl. polisher, 2 brush, $10; Craftsman hand mower; Polaroid J66 w/case & flash attach., $30; Lionel trains, trks., access., $50. 796-7747.

**MISC.:** Brass bird cage, $10; baby carr., dress. tbl., playpen, stroller, jump seat, train. chrs., pool seat, snooze chrs., food warmers, $60; toys, indr. slide, easel, vanity, play house, $20. 265-9422.

**WIG:** Drk. brown human hair, never worn, $30. 584-7994.

**CORVAIR:** '63 Monza, 4-dr. sed., 3-spd., R&H, bkt. seats, ask. $300. 742-0458.

**VOLVO:** '67, 2-dr. sed., auto., R&H, snows, 2 xtra whls., $1,095. 588-8132.

**MOTORCYCLE:** '69 Suzuki, 250cc, Scrambler, 4,000 mi. PE 5-5145, after 5.

**HOUSE:** N. Bethpage, 7½ rm. brick/cedar split, fin. bsmt., air cond., attic fan, above ground pool, panel., all appli. incl. freezer, nr. Grumman, $38,500. OV 1-0023.

**DINK:** 8 ft. fbgl., $100. JU 8-5479.

## For Sale

**HOUSE:** Strathmore East, 4 bdrm. hi-ranch, 4 yr., ¾ acre fully Indscpd., firepl., cov. raised patio, w-w, s-s. all appli., $34,500. 698-2499.

**COACH:** Bilt Rite w/hand paint. pink & blue flowers on wh., match. bag & matt., best offer. 212 939-3067, after 6.

**BICYCLES:** 26 in. girl's Columbia, $10; 20 in. boy's Rollfast, $10. MY 1-5948.

**GALAXIE:** '64, 500, 4-dr. hdtp., Cruismatic transm., pwr. steer., vinyl int., reason. 667-1455.

**BIKE:** '67 Honda, 300cc, 2 new carbs, new batt., comp. tune-up, 2,500 orig. mi., $350. JU 1-5589, after 6.

**CAB. CRUISER:** 20 ft. Penn Yan, '70, 115 hp Johnson outbd., in water. 884-7229.

**HOUSE:** N. Farmingdale, 4 bdrm. cape, 2 bath, bsmt., gar., pvt. locat., nr. shops & sch. $32,500. CH 9-8964, after 5.

**EXH. FAN:** 30 in., suit. store or attic, 1/3 hp, 1725 rpm. 212 FL 8-8788, after 7.

**CALCULATOR:** Smith Corona Marchant, mod. 10CM, full inst. incl., $200. IV 1-7628.

**MISC.:** '62 Corvette, nds. muff., auto., $1,000; '66 Corvette coupe, nds. fin. touches; '66 Corvette, comp. bdy. less frame & drive line; 2, '70 Chevrolet engs., 307 CID, 1 auto., less than 5,000 mi.; misc. Corvette bdy. parts & run. gear. 473-6617.

**BOAT:** 12 ft. Arkansas Traveler, grn., hvy. gauge alum., oars, locks, rope & anchor, $100. NA 8-2638, after 6.

**TRLR. HITCH:** Utility, will fit most cars, make offer. HA 7-4986.

**CORVAIR:** '65 Monza, R&H, std., 25 mpg, $450. 928-0804.

**STA. WAG.:** '63 Chevrolet, V-8, std., posi, $325. 997-9873, evgs.

**PEUGEOT:** '63, 404 sed., 4-spd., sunroof, chassis rusted, gd. for parts or repair, gd. run. cond., $125. 271-7422.

**MUSTANG:** '70 Boss 302, 4-spd., pwr. steer. & bks., FM stereo tape, Detroit posi, NF F-60x15 tires, front & rear spoilers, rear wind. louvers, 16,000 mi., $2,950. 543-9076.

**MOBILE HOME:** 12x50. 598-3759.

**TENT TRLR.:** Camp., slps. 4, Universal auto hitch avail., $7/day, $15/wkend. CA 1-3625.

**HOUSE:** Huntington Bay Hills, 45 yr., 3 bdrm., din. rm., den, study, 1½ bath, gar., patio, firepl. in liv. rm., 1 blk. deeded bch. & moor., $39,900. 549-4753.

**PROPERTY:** Phoenicia, N. Y., wood., fish., hunt., skiing, paved rd., 3 hr. L. I. MO 7-7678.

**PROPERTY:** Magoun Land., W. Islip, 140 ft. waterfront bulkhded, w/bch., ½ acre rvy. wood. plot, $27,000, will finance. PY 9-6868.

**MISC.:** 8 mo. Mediterranean furn., lamps, pictures, w-w, drapes, best offer. 681-2963, after 4.

**FURN.:** 2 pc. sect. French Prov., champagne, plastic cov., $250. 681-5440.

**BABY FURN.:** 1, 5 dwr. chest, wardrobe, $20/ea. or $35/both. FO 8-5722.

**MUSTANG:** '65, V-8, auto., pwr. steer. & bks., air cond., AM/FM stereo, alarm, xtras. MA 1-9171, after 5:30.

**RUNABOUT:** '65 Sea Ray, fbgl. w/327 Chevy Merc/Cruiser 1/0, full equip., tandem whl., trlr. & elec. winch, $1,950. RA 8-9494.

**DIVING GEAR:** Scott-Pack, tanks tumbled, 2-12-70, full face mask, reg. o'haul. 4-10-71, wgt. belt & carry. case, $75. 266-3156.

**HOUSE:** Huntington, 3 bdrm., split, 2 bath, formal din. rm., new eat-in-kit., 18x25 den w/firepl., cathed. ceil. liv. rm., panel, beam ceil., w-w, air cond., 2 lrg. patios, $38,990. Fred Haul, Ext. 2377.

**MISC.:** Dinette set, 4 chrs., china closet; end tbls., lamps, studios w/bolsters; porcelain ink; Danish chrs., reason. 864-4130.

**FOAM CUSH.:** 4 xtra thick sofa sz., $10. PE 5-4161.

**MISC.:** Summer fold. carr., conv. to car bed, $10; coachette, laven, blue, lift out bdy., fold. frame, all access., $35; car seat, infant seat, walker, lamp, Bilt-Rite hi-chr., $15; Blk. Angus broiler, $10. 694-5622.

**SEW. MACH.:** White, in cab., all attach., $35. 277-1029.

**CAMERA:** Dejur 8 mm mag., $15; Dejur 8mm projector, $15, $25/both. 621-3734.

**POODLES:** Toys & minis, champ sired, puppies & adults, for show & pet. WE 5-2083, after 6.

**BDRM. SET:** 3 pc. blond wood, bkcase, hdbd., chest & dress, w/mirror, $50. FR 9-3372.

**POOL TBL.:** Superior line, all equip., full sz., ask. $90. 261-5202.

## For Rent

**WASHER:** Westinghouse fully auto., $25. WE 1-2567.

**MISC.:** 3 bar stools/kit. counter stools, beige & wal. vinyl/antique copper frame, $16/ea. 744-0352.

**PIANO:** 5 ft. Baumbach baby grand, best offer. 484-1268.

**PUPPIES:** German shep., AKC, male or fem., avail. end of June, $50. AN 6-1461.

**CHEVROLET:** '70 Nova SS, 396/375, blk., cust. seats, Hurst, precision, Lakewood bars, Crowler alum. intake valves, posi, alarm, hook locks, slicks, AM/FM, best offer. 212 978-2898.

**BARRACUDA:** '70, wh., blk. vinyl tp., air cond., pwr. steer., bkt. seats, cons., lgt. pack, low mi. 212 779-4535.

**FIAT:** '69, 850, conv., new tp., comp. tune up w/new parts. PY 6-4295.

**RAMBLER:** '68 Ambassador, air cond., 4-dr. sed., $1,350. 585-4142.

**OLDSMOBILE:** '59, 88, 4-dr. hdtp., pwr. steer. & bks., recent tune up, $150. 681-7338.

**BOAT:** '61 Ulrichson flybridge Sportsfisherman, 210 hp Crusader, f.w.c., S/S, depth find., summer & win. canv., blt. in fish well, bilge pump, 2 compass., anchor & line, dock lines, cush., life preserv., save-cote paint. WE 5-2621, after 5.

**BOAT:** 17 ft. Larson Velero, full canv., inbd. tank, 85 hp Evinrude, 2,000 Sealion trlr., used 40 hrs., $2,850. PY 8-0369.

**MISC.:** New Simpson 55w, S/S radio w/antenna, $145; compass for flybridge (Corsair) $25; Raytheon explorer record. Fathometer, $125; sonar depth find., $75; Gues charger & inverter, $50. PY 8-3869.

**ARMY TENT:** 10 man Artic w/detach. liner, octagonal, $300. 212 456-0843.

**SNOW SKIS:** Grand Prix, wood, new bind., not mtd., cab. bind. incl., $25. 681-9588.

**HOUSE:** Plainview, 7 rm., 3 bdrm., 1½ bath, fin. playrm., carpet., s-s, appli., nr. sch. & transp., $39,900. WE 8-2804.

**HOUSE:** Hicksville, 3 bdrm. Cape, fin. bsmt. w/sep. ent., cov. patio, o'sz. gar., cycl. fenc., 4 appli., low tax, xtras, $31,900. WE 1-7827.

**HOUSE:** E. Northport, 3 bdrm. sol. brick ranch, 1 bath, country kit., w-w, low tax., lndscpd., xtras, $35,500. AN 1-9413.

**HOUSE:** Massapequa Pk. ranch, F'dale sch. dist., cent. air cond., fin. bsmt., appli., carpet., firepl., s-s, cov. patio, treed, $40,000. LI 1-9070.

**HOUSE:** Commack-Smithtown, lrg. 7 rm. Col., slate ctr. foyer, beam. din. rm., panel. den, true brick country kit., ¾ acre, lndscpd., treed, xtras, $39,990. 543-2537.

**CEDAR PICKETS:** 400, 36x2½x¾ in., used. PI 1-7494, bet. 5-8 p.m.

**AIR COND.:** Chrysler Air Temp., '70 Imperial, 6,500 BTU, 7½ amp., 115v, used 10 hrs., $175. LT 9-3480.

**MISC.:** Aurora track; baby stroller; baby car seat; games; household items. 878-2775.

**MISC.:** Filt. for 3x12 pool, 1 season, $15; nursery items, playpen, jump chr., jolly jumper. 785-6970.

**MISC.:** Baby crib, fold. coach carr., car seat, $40; Paragon oil burner motor & pump, $20. 822-1088.

**MISC.:** Child craft wal. crib, 1 yr., $25; reel type lawnmower, $25; wal. dinette tbl., $30. 724-4312.


plane
GRUMMAN
news

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## For Sale

**FISH TANK:** 20 gal. tropical, comp. set up, just add water & fish, wr. iron std. w/btm. shelf, $40. 333-6874.

**POOL TBL.:** W/all access., $30. 798-5619, after 5.

**BUICK:** '64 Riviera, full pwr., air cond., $1,000. 588-1778, after 6.

**VW:** '69 Bug, tan, auto. stick shift, radio, 24,000 mi., $1,300. 212 767-3810.

**DODGE:** '69 Swinger, 6 cyl., pwr. steer., 4 new poly Goodyear tires, 4 new shocks, auto., vinyl tp., $1,500. 938-0931.

**VW:** '64 Bug, new clutch, grey w/red int., 61,000 mi., $625. 536-4794.

**OLDSMOBILE:** '65 sed., 98, air cond., all pwr., new tires, snows on sep. whls., xtras, $900. WE 8-0280, after 7.

**MOTORCYCLE:** Harley-Davidson, XLH sportster M-C, 7,000 mi., $1,900. 931-5990, evgs.

**MOTORCYCLE:** '67 Yamaha, 250cc, $250. WE 5-0632, after 6.

**MINI BIKE:** Stella "D", 3½ hp, $90. WE 5-6378.

**MOBILE HOME:** 12x55, 2 bdrm., s-s, air cond., comp. furn., washer, xtras, must be moved. $6,990. 681-8290.

**HOUSE:** Farmingdale, 6 rm. corner ranch, ctr. hall, gar., bsmt., xtras, low $30s. CH 9-8777.

**HOUSE:** Bethpage Estates, 3-5 bdrm. hi-ranch, cul-de-sac, maid's rm., laundry, playrm., fam. rm. w/ beam. ceil., cent. air cond., s-s, w-w, 4 appli., botan. gardens, Fla. cov. patio, gar., o.h.w., 2-zone, 2 bath, ¼ acre, $16,000 lndscpd., low $50s. 938-6140.

**HOUSE:** Wading River, 9 rm. Cape, attach. gar., 1 wood. acre, 5 lrg. bdrm., 2½ bath, lrg. eat-in-kit., full bsmt., firepl. in liv. rm., w-w liv. rm., din. rm., laundry, s-s, 150 amp, appli., $38,500. 929-6369.

**PROPERTY:** Mohican Lake, 100x100, 6 blks. lake, 15 mi. S. Monticello, elec. & phone avail., $1,175. 293-9594, after 7.

**PROPERTY:** Loch Sheldrake, nr. Liberty, N.Y., 20 wood. acres, pwr. & water, 550 ft. on paved rd., $13,000. 744-6903.

**BDRM. SET:** Full sz. hdbd., dress. & chest, lrg. mirror, $75. LI 1-6155.

**DINETTE SET:** 48 in. octagon stone tp. tbl. w/wide gauge wr. iron antique ped. btm., 4 match. chrs. w/uphol. seats, 6 mo., $350. 543-2537.

**LAMP TBLS.:** 2 fruitwood, ¼ in. plate gl. cut cust. tp., 27x27x26, $45; 23x23x24, $35. RO 4-1304, after 5.

**PIANO:** Wurlitzer spinet w/stor. bench, drk. maple w/lea. trim, $375. Fred Haul, Ext. 2377.

**PIANO:** Classic, nds. repair, $25. 798-5619, after 5.

**MISC.:** New 4 ft. Sears formica kit. counter, $10; match. grn. antique drop leaf tbl., $50; wal. den couch w/2 bolsters, $25; 2, 7:75x14 tires, $10; storm & scrn. dr., 29x90 w/hdware, $15; mod. 2 pc. sect. 10 ft., blue grn., $200; silent butler & chr., $10; 2 brass fl. lamps, $15. 889-9813.

**PONTIAC:** '70, 2-dr. hdtp. Catalina, pwr. steer. & bks., radio w/rear spkr., w/w, auto., air cond., tint. gl., vinyl roof & int., Ventura trim, $2,750. Fred Haul, Ext. 2377.

**CORVETTE:** '69 conv., blue w/wh. tp., air cond., AM/FM stereo, alarm, $2,899. 212 377-4744.

**VW:** '70 Notchback sed., European mod., 13,000 mi., $1,825. MY 2-5126.

**OLDSMOBILE:** '68, 442 conv., air cond., new tires, pwr. steer. & bks., 20,000 mi., orig. owner, ask. $2,700. 586-4576.

**FORD:** '69 LTD hdtp., full pwr., red & blk. vinyl tp., air cond., pwr. wind., low mi., $2,400. 586-0549.

**CHRYSLER:** '63 Imperial 4-dr. hdtp., air cond., pwr. steer. & bks., auto., w/w, rear spkr., $200. 732-3552.

**CHEVROLET:** '65 Impala SS, pwr. steer. & bks., Hd. susp., 396 c.i., 300 hp, ask. $400. 212 539-2286, after 6:30.

**STARFIRE:** '62 Olds, conv., pwr. wind. 643-9064.

**COMET:** '65, 6 cyl., 4-dr., std., nds. left front fender, $200. MO 1-6543.

**CAB. CRUISER:** 30 ft., 115 hp Palmer, hd., wash basin, lrg. cockpit, nds. paint, gd. fish., fam. boat. $850. 271-7422.

**BOAT:** 28 ft. Ulrichsen, 210 hp Chrysler marine, fully equip., in water. MO 5-6033.

**SURFBD.:** 9 ft. 6 in., no dings, $45. MO 9-2892.

**SURFBD.:** 9 ft. 6 in., hollow fbgl., w/skeg, blue, by Hammond, $80. AM 4-5689.

**MUSTANG:** '69, 2-dr. hdtp., rac. scoop & mirrors, 302 V-8, wh., blk. vinyl roof, 19,000 mi., stereo tape, $2,200. 289-8597.

**Outstanding performance.** **Grumman Director of Operations at KSC, Chuck Kroupa, presented a Project Sterling group award to members of the Calibration Lab at the Cape for 'outstanding performances' while contributing to the preparation of the LM-8 flight.**

## For Sale

**BOAT:** 19½ ft. Amer. Finn skiff, reblt. 80 hp Evinrude, xtras, $950. 691-2807, after 6.

**BOAT:** '69 Katama Boston Whaler, 16½ ft., '68, 85 hp Johnson, batt. & box, fbgl. cons., bkt. seats, pilot's bench, ski squip., TNT trlr., xtras, $2,800. HA 3-3833.

**MARINE ENG.:** Used, 22 hp, 4 cyl., Palmer, $295. 653-5619.

**FORD:** '63 conv., V-8, wh., R&H, auto., $375. 281-9863.

**MGTC:** '48, 4 new 19 in. whls., comp. bk. job & eng. tune up, ask. $3,500 or best offer. 727-5598, after 7.

**VW:** '64, radio, mtd. snows, orig. owner, xtras, ask. $600. 692-5334.

**TRIUMPH:** '69 GT 6+, AM/FM, o'drive, IRS. 864-5259,, after 6.

**COVERS:** For wire whls., 15 in. chrome, $35, set of 4. 681-9588.

**HOUSE:** Huntington, 3 bdrm., 1½ bath, fam. rm., gar., ¼ acre, air cond., dryer, low 5¾% mtge., $29,000. HA 3-4888.

**HOUSE:** Wantagh vic., 9½ rm. Col. split, nr. sch. & shops, 2 rm. can be for prof. ofc. or add. bdrm. PE 5-3357.

**CAMERA:** Polaroid 150 w/lea. case & access., $25; Shetland fl. waxer-polisher, $10; lady's beaver coat, sz. 12-14, $25. 277-1971.

**CAMERA:** Polaroid auto. 100 Land, case, flash, color & B&W, 6 mo., $90. 732-4022.

**CAMERA:** Konica auto S-2, f 1.8, warr., $65. 212 923-8509.

**POOL TBL.:** 8x4, 3 yr., 1 set balls w/spec. cue ball, 5 sticks, bridge & rack, ask. $250. 661-4569.

**BOAT:** '58 Owens, 22 ft. cab., slps. 2, '66 Chevy, 8 cyl. inbd., s-s, fully equip., port. TV hookup, rdy. to go, $1,500. JU 6-4339, after 11 a.m.

**R/C UNIT:** 1 comp. 4 channel, man., 1 yr., $125. AN 9-6231.

**BICYCLE:** 26 in. men's 3-spd. Eng. racer, '71, $30. 423-1481, after 5.

**VW:** '66, wh., red int., R&H, low mi. 586-1729, after 5.

**PONTIAC:** '68 LeMans, 350 c.i., 3-spd. stick, nw. bks., rear defogger, & spkr., bkt. seats, chrome whls., $1,350. 665-4322, after 4:30.

**SHOCK ABSORBERS:** Rd. levelers for hvy. car, Buick, Olds., etc., front & rear, 1 mo., $30. MY 4-5884.

**AIR CLEANERS:** 2 new chrome plated, cust. hi-perf. for Stromberg carb., 175CD, throttle open. 1¾ in., $10. 212 871-6217.

**MINI BIKE:** '70 Cheeftah-Scramber, 3½ hp Clinton, 12 in. Knobby tires, mag. whls., Merc clutch, drum bks., $145. CH 9-0576.

**TRAVEL TRLR.:** '69 Holiday, 23 ft. tandem whls., self cont., elec. & gas pwr'd., slps. 6, ref., heat., range, shower, bath, sink, $3,500. 924-5245, after 5.

**MOTORCYCLE:** '70 Kawasaki Mach III 500, cust. seat, fender, sissiy rail, Z bars, 2,700 mi., just tuned, $875. 567-3718.

**BOAT:** 18 ft. Pennant Sloop, 700 lb. keel, cuddy cab., dac sails, 7½ hp outbd. aux., 75 lb. mushrm. anchor, $675. 676-5484.

## For Sale

**MOWER:** 18 in. Craftman reel, self prop., $40. 261-5707.

**MISC.:** Micromet/Calgon feed. #6, w/approx. 8 lb. of micromet for rust/corrosion prev. in well water sys., $20. 265-7204.

**CUTLASS:** '68, V-8, 2-dr. sed., blue w/vinyl tp., std., new cutch, R&H, rear spkr., $1,400. 212 343-2253, after 6.

**OLDSMOBILE:** '64, 98, 4-dr. hdtp., 59,000 mi., 2 mtd. snows, $600. 751-4940.

**FIREBIRD:** '68, 400, 4-spd., pwr. steer. & bks., 4 Crager mags, red, blk. vinyl tp., xtras, ask. $2,000. 368-8812.

**VW:** '66 Squareback, rebt. eng., new clutch, $950. 741-1520.

**CHEVROLET:** '68 Caprice, 2-dr., ivory w/blk. vinyl tp., air cond., pwr. steer. & relined bks., new w/w, rear spkr. & defroster, snows. HA 3-5273.

**HOUSE:** E. Northport, 2 bdrm. cape, low tax, ¼ acre, treed, din. rm., eat-in-kit., encl. sunporch, w-w, attach. gar. AN 1-3893.

**AUTO PARTS:** 3, 13x5.5 whls., '65 Corvair conv. boot., lt. blue. 941-4247.

**BOAT:** 16 ft. fbgl. M.F.G., 50 hp Merc. outbd., elec. start. alternator, will demon., $700. MO 1-3648, after 6.

**BOAT:** 30 ft. Egg Harbor, new twin 125 Chryslers, flybridge, radio, 2 depth find., eng. synch., re-chromed, new cush., slps. 4, access., $10,250. 929-4021.

**OUTBD.:** 35 hp, '64 Mercury w/tank & controls, $150. 941-4247.

**HOUSE:** Northport, 7 rm., 2 bath, can be conv. mother-daughter, full bsmt., plaster walls, s-s, gar., encl. breezeway, sundeck, 75x130, $33,500. AN 1-7538.

**HOUSE:** Bay Shore, 4 bdrm. hi-ranch, 1½ bath, din. rm., eat-in-kit., porch deck, fam. rm., 2 car gar., xtras, $28,900. 665-3943, after 5.

**HOUSE:** N. Bethpage, 6 rm. brick ranch, fin. bsmt., air cond., $31,000. OV 1-6674.

**FLASH UNIT:** Honeywell Tilt-A-Mite, will fit most cameras, never used, $10. Ollie Linstead, Ext. 87381.

# OBITUARIES

**Plane News has received word that death has come to the Grumman personnel listed below. We extend sincere sympathy to relatives and friends.**

ROBERT E. RAU of Calverton Planning & Control, Plant 6, died June 23 at the age of 47. He had been with Grumman 20 years, and his home was at 10 Cedar Ave., Lake Ronkonkoma.

JOHN H. GREEN JR. died July 5 at the age of 49. He had been with Grumman since 1942, and he lived at 76 Dosoris Way, Glen Cove. He worked in Production Control - Parts Control, Plant 3.

# Big day a-comin'—Family Picnic set for Saturday, July 17

Slip into your sneakers, round up the family, and head for the corral at Calverton. Saturday, July 17, is the date for Grumman's big annual outing, famous these many years as a safe and sane way to entertain the children for a whole day. Pay $2 if you're over 12; the under-12s come free.

Don't forget that tickets must be bought in advance. None sold at the gate.

That's just the start of the bargain outing. There will be hot dogs galore and oceans of free soda pop, milk, and ice cream. Dad can have his suds in a cup, or even in a pitcher if he plans it right—and if Mom wants to vary the menu, they'll bring along a grill and an ice bucket and live it up while the kids race around and ride to their heart's content.

Tickets: They'll be on sale right to the closing of the night shift on the 16th. Remember, none are on sale at the gate. Only Grumman employees and their immediate families are eligible, with this exception: A single employee may bring a girlfriend or boyfriend as guest.

### New routes

Picnic-goers from south shore or mid-island areas found last year that the Long Island Expressway got them to the picnic site in fast time. Now that exits beyond 68 are open, the distance seems diminished. Take Exit 69, Wading River Road, Wading River. It takes you to Route 25, you turn east, and in ¼ mile you are at the entrance to your fun day.

The Calverton Maintenance Department has been grooming the grounds for a dustless, bugless, comfortable day. Gates open at 8 a.m., and Grumman Aerospace President Bill Zarkowsky—a seasoned picnic-goer—will make everything official by raising the flag at 10.

Music is in the hands of Al Kordula and Matt Daniels, assisted by three vocalists: Ruthanne Graham of Flight Avionics, Plant 33, Jean Golder of Plant Management & Staff, Plant 36, and Harry Hess of Contracts - Aircraft, Plant 34. The band will play for the flag-raising ceremonies and for dancing during the day.

The outdoor show, says Gus D'Errico, picnic impresario, will sizzle with an aerial act 75 feet up, skaters, a juggler, Buttons the Clown, and more.

### Watermelon feast

This year there will be a watermelon tent for the kids, but they must wait until it opens at 2 o'clock. Information will be given on the PA system. Now that's just for children, folks. Before that they will have joined in the races and tried out the trains (of which there are two) and stood patiently waiting for rides on the carousel and the Octopus. The mini rides and the swings are happily patronized by the littlest ones.

John Koloski was inundated with registrations for the Junior Gloves event and if your young hero has been registered, you can watch him in contention some time after the 2 o'clock bell. That's a shady part of the picnic grounds, so join the audience and give the warriors a round of applause.

Feeling lucky? There'll be prizes for adults' as well as children's races: potato sack races for women, fat men's race, three-legged event, cigar relay, wheelbarrow race, egg tossing, and a softball throwing event for women. Requiring less effort will be about 100 prizes to be given away during the afternoon. So save your ticket stubs. Drawing will start at 2:30. Whoever is lucky enough to win the Grand Prize will have a choice of several major appliances, including 13 cubic foot refrigerator, 13 cubic foot freezer, 23-inch television, portable automatic dishwasher, portable color TV.

### Picnic program

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| 10 a.m. | Flag raising |
| 10:30 a.m.-2 p.m. | Sporting events |
| 10:30 a.m.-12:45 p.m. | Continuous dance music |
| 1 p.m. | Children's entertainment |
| 2 p.m. | Junior gloves |
| 2:15-4:45 p.m. | Continuous dancing |
| 2:30 p.m. | Door prizes |
| 4:45 p.m. | Closing ceremonies |

**Getting ready.** Come this Saturday, July 17, there are going to be a lot of kids looking to board the carousel, so Art Hilton and Bill Schovanec are helping to put these broncos in shape for the big day. (Photo by Ken Bolton)

D'Errico said last week ticket sales were ahead of last year's and he is predicting a big crowd. So gather up the family, bring the sun tan lotion and your portable radio, and make it your Day of the Year. Where else can you enjoy so much for so little?

### Just in case

In the unlikely event of rain on Picnic Day, the outing will be held on Sunday, July18.

Any postponement will be announced early on Saturday over the following Long Island radio stations:

WLIR, Garden City (FM 92.7); WGBB, Freeport (AM 1240); WHLI, Hempstead (AM 1100); WBAB, Babylon (AM 1440, FM 102.3); WALK Patchogue (AM 1370, FM-97.5); WGSM, Huntington (AM-740); WLNG, Sag Harbor (AM-1600).

A quick check may also be made by telephone. Information will be available by dialing LR 5-5111 in Bethpage, or PA 7-1504 in Calverton.

## Add phones to CU

The Bethpage Aircraft Federal Credit Union has acquired new telephone extensions to improve service to Credit Union members. For Withdrawals and Account Information, call Ext. 9042: Loan Department, 9045; Manager and Assistant Managers, 9047.

## Got an idea?

Summer's here and all approved employee suggestions handed in to the Corporate Suggestion Office during July will receive double Flight Shop certificates, good for a minimum of $6 worth of Flight Shop merchandise. So "write it up, send it in, in July." The better the idea, the bigger the opportunity to earn awards.

## All roads pointing toward Calverton